

## ABSTRACT

5        Methods, devices and device components are presented for blood processing. Particularly, methods, devices and device components are presented for separating blood into blood components and collecting one or more separated blood components, which reduce the incidence of blood vessel infiltration and enhance donor comfort. In one aspect, the invention provides blood processing methods having a return flow rate which decreases systematically  
10      during a return time. In another aspect, the invention provides blood processing methods having a removal flow rate, return flow rate or both which are derived from a subject's total blood volume. In another aspect, the present invention provides blood processing methods wherein the fraction by volume of removed blood corresponding to collected components is selected to optimize blood processing efficiency and enhance the purities of collected blood components.